

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 10/759,731A
Source: 1FW0
Date Processed by STIC: 12/22/04

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RAW SEQUENCE LISTING

DATE: 12/22/2004

PATENT APPLICATION: US/10/759,731A

TIME: 12:12:46

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\12222004\J759731A.raw

3 <110> APPLICANT: Bond, Christoper J.
 5 <120> TITLE OF INVENTION: SYNTHETIC ANTIBODY PHAGE LIBRARIES
 7 <130> FILE REFERENCE: 11669.136USU1
 9 <140> CURRENT APPLICATION NUMBER: 10/759,731A
 10 <141> CURRENT FILING DATE: 2004-01-16
 12 <150> PRIOR APPLICATION NUMBER: US 60/441,059
 13 <151> PRIOR FILING DATE: 2003-01-16
 15 <150> PRIOR APPLICATION NUMBER: US 60/488,610
 16 <151> PRIOR FILING DATE: 2003-07-18
 18 <150> PRIOR APPLICATION NUMBER: US 60/510,314
 19 <151> PRIOR FILING DATE: 2003-10-08
 21 <160> NUMBER OF SEQ ID NOS: 194
 23 <170> SOFTWARE: PatentIn version 3.3
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 109
 27 <212> TYPE: PRT
 28 <213> ORGANISM: Artificial Sequence
 30 <220> FEATURE:
 31 <223> OTHER INFORMATION: 4D5 light chain variable domain
 33 <400> SEQUENCE: 1
 35 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 36 1 5 10 15
 39 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Val Asn Thr Ala
 40 20 25 30
 43 Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 44 35 40 45
 47 Tyr Ser Ala Ser Phe Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
 48 50 55 60
 51 Ser Arg Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 52 65 70 75 80
 55 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Thr Thr Pro Pro
 56 85 90 95
 59 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr
 60 100 105
 63 <210> SEQ ID NO: 2
 64 <211> LENGTH: 120
 65 <212> TYPE: PRT
 66 <213> ORGANISM: Artificial Sequence
 68 <220> FEATURE:
 69 <223> OTHER INFORMATION: 4D5 heavy chain variable domain
 71 <400> SEQUENCE: 2
 73 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 74 1 5 10 15

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77 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Ile Lys Asp Thr
78          20          25          30
81 Tyr Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
82          35          40          45
85 Ala Arg Ile Tyr Pro Thr Asn Gly Tyr Thr Arg Tyr Ala Asp Ser Val
86          50          55          60
89 Lys Gly Arg Phe Thr Ile Ser Ala Asp Thr Ser Lys Asn Thr Ala Tyr
90 65          70          75          80
93 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
94          85          90          95
97 Ser Arg Trp Gly Gly Asp Gly Phe Tyr Ala Met Asp Val Trp Gly Gln
98          100          105          110
101 Gly Thr Leu Val Thr Val Ser Ser
102          115          120
105 <210> SEQ ID NO: 3
106 <211> LENGTH: 35
107 <212> TYPE: PRT
108 <213> ORGANISM: Artificial Sequence
110 <220> FEATURE:
111 <223> OTHER INFORMATION: GNC4 leucine zipper
113 <400> SEQUENCE: 3
115 Gly Arg Met Lys Gln Leu Glu Asp Lys Val Glu Glu Leu Leu Ser Lys
116 1          5          10          15
119 Asn Tyr His Leu Glu Asn Glu Val Ala Arg Leu Lys Lys Leu Val Gly
120          20          25          30
123 Glu Arg Gly
124          35
127 <210> SEQ ID NO: 4
128 <211> LENGTH: 5
129 <212> TYPE: PRT
130 <213> ORGANISM: Artificial Sequence
132 <220> FEATURE:
133 <223> OTHER INFORMATION: C-terminal of CDRH3 of 4D5
135 <400> SEQUENCE: 4
137 Tyr Ala Met Asp Tyr
138 1          5
141 <210> SEQ ID NO: 5
142 <211> LENGTH: 7
143 <212> TYPE: PRT
144 <213> ORGANISM: Artificial Sequence
146 <220> FEATURE:
147 <223> OTHER INFORMATION: heavy chain CDR3
149 <400> SEQUENCE: 5
151 Ser Arg Asn Ala Trp Ala Phe
152 1          5
155 <210> SEQ ID NO: 6
156 <211> LENGTH: 11
157 <212> TYPE: PRT
158 <213> ORGANISM: Artificial Sequence

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160 <220> FEATURE:
161 <223> OTHER INFORMATION: heavy chain CDR3
163 <400> SEQUENCE: 6
165 Ser Arg Asn Leu Ser Glu Asn Ser Tyr Ala Met
166 1          5          10
169 <210> SEQ ID NO: 7
170 <211> LENGTH: 11
171 <212> TYPE: PRT
172 <213> ORGANISM: Artificial Sequence
174 <220> FEATURE:
175 <223> OTHER INFORMATION: heavy chain CDR3
177 <400> SEQUENCE: 7
179 Ser Arg Ala Gly Trp Ala Gly Trp Tyr Ala Met
180 1          5          10
183 <210> SEQ ID NO: 8
184 <211> LENGTH: 11
185 <212> TYPE: PRT
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: heavy chain CDR3
191 <400> SEQUENCE: 8
193 Ser Arg Ala Ala Lys Ala Gly Trp Tyr Ala Met
194 1          5          10
197 <210> SEQ ID NO: 9
198 <211> LENGTH: 12
199 <212> TYPE: PRT
200 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:
203 <223> OTHER INFORMATION: heavy chain CDR3
205 <400> SEQUENCE: 9
207 Ser Arg Ser Asp Gly Arg Asp Ser Ala Tyr Ala Met
208 1          5          10
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212 <211> LENGTH: 13
213 <212> TYPE: PRT
214 <213> ORGANISM: Artificial Sequence
216 <220> FEATURE:
217 <223> OTHER INFORMATION: F63
220 <220> FEATURE:
221 <221> NAME/KEY: MISC_FEATURE
222 <222> LOCATION: (3)..(9)
223 <223> OTHER INFORMATION: Xaa is either A, C, D, E, G, K, N, R, S, T, Y, or W
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W--> 227 Ser Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala Met Asp Tyr
228 1          5          10
231 <210> SEQ ID NO: 11
232 <211> LENGTH: 14
233 <212> TYPE: PRT
234 <213> ORGANISM: Artificial Sequence

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236 <220> FEATURE:
237 <223> OTHER INFORMATION: F65
240 <220> FEATURE:
241 <221> NAME/KEY: MISC_FEATURE
242 <222> LOCATION: (3)..(8)
243 <223> OTHER INFORMATION: Xaa is A, C, D, E, G, K, N, R, S, T, Y, or W
245 <220> FEATURE:
246 <221> NAME/KEY: MISC_FEATURE
247 <222> LOCATION: (9)..(9)
248 <223> OTHER INFORMATION: Xaa is any naturally occurring amino acid
250 <400> SEQUENCE: 11
W--> 252 Ser Arg Xaa Xaa Xaa Xaa Xaa Xaa Tyr Ala Met Asp Tyr
      253 1          5          10
256 <210> SEQ ID NO: 12
257 <211> LENGTH: 13
258 <212> TYPE: PRT
259 <213> ORGANISM: Artificial Sequence
261 <220> FEATURE:
262 <223> OTHER INFORMATION: F64
265 <220> FEATURE:
266 <221> NAME/KEY: MISC_FEATURE
267 <222> LOCATION: (3)..(7)
268 <223> OTHER INFORMATION: Xaa is A, C, D, E, G, K, N, R, S, T, Y, or W
270 <220> FEATURE:
271 <221> NAME/KEY: MISC_FEATURE
272 <222> LOCATION: (8)..(8)
273 <223> OTHER INFORMATION: Xaa is any naturally occurring amino acid
275 <400> SEQUENCE: 12
W--> 277 Ser Arg Xaa Xaa Xaa Xaa Xaa Xaa Tyr Ala Met Asp Tyr
      278 1          5          10
281 <210> SEQ ID NO: 13
282 <211> LENGTH: 13
283 <212> TYPE: PRT
284 <213> ORGANISM: Artificial Sequence
286 <220> FEATURE:
287 <223> OTHER INFORMATION: F66
290 <220> FEATURE:
291 <221> NAME/KEY: MISC_FEATURE
292 <222> LOCATION: (3)..(8)
293 <223> OTHER INFORMATION: Xaa is any naturally occurring amino acid
295 <400> SEQUENCE: 13
W--> 297 Ser Arg Xaa Xaa Xaa Xaa Xaa Xaa Tyr Ala Met Asp Tyr
      298 1          5          10
301 <210> SEQ ID NO: 14
302 <211> LENGTH: 51
303 <212> TYPE: DNA
304 <213> ORGANISM: Artificial Sequence
306 <220> FEATURE:
307 <223> OTHER INFORMATION: oligonucleotide F151

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310 <220> FEATURE:
311 <221> NAME/KEY: misc_feature
312 <222> LOCATION: (23)..(23)
313 <223> OTHER INFORMATION: v is a, c, or g
315 <220> FEATURE:
316 <221> NAME/KEY: misc_feature
317 <222> LOCATION: (25)..(26)
318 <223> OTHER INFORMATION: r is a or g
320 <220> FEATURE:
321 <221> NAME/KEY: misc_feature
322 <222> LOCATION: (28)..(28)
323 <223> OTHER INFORMATION: w is a or t
325 <220> FEATURE:
326 <221> NAME/KEY: misc_feature
327 <222> LOCATION: (29)..(29)
328 <223> OTHER INFORMATION: m is a or c
330 <220> FEATURE:
331 <221> NAME/KEY: misc_feature
332 <222> LOCATION: (30)..(30)
333 <223> OTHER INFORMATION: y is c or t
335 <220> FEATURE:
336 <221> NAME/KEY: misc_feature
337 <222> LOCATION: (31)..(31)
338 <223> OTHER INFORMATION: k is g or t
340 <220> FEATURE:
341 <221> NAME/KEY: misc_feature
342 <222> LOCATION: (32)..(32)
343 <223> OTHER INFORMATION: m is a or c
345 <400> SEQUENCE: 14
346 gcagcttctg gcttcacat taytrtwny kmtatacact ggggtgcgtca g
349 <210> SEQ ID NO: 15
350 <211> LENGTH: 51
351 <212> TYPE: DNA
352 <213> ORGANISM: Artificial Sequence
354 <220> FEATURE:
355 <223> OTHER INFORMATION: oligonucleotide F152
358 <220> FEATURE:
359 <221> NAME/KEY: misc_feature
360 <222> LOCATION: (23)..(23)
361 <223> OTHER INFORMATION: v is a, c, or g
363 <220> FEATURE:
364 <221> NAME/KEY: misc_feature
365 <222> LOCATION: (25)..(26)
366 <223> OTHER INFORMATION: r is a or g
368 <220> FEATURE:
369 <221> NAME/KEY: misc_feature
370 <222> LOCATION: (28)..(28)
371 <223> OTHER INFORMATION: w is a or t
373 <220> FEATURE:

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RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:10; Xaa Pos. ~~3,4,5,6,7,8,9~~
Seq#:11; Xaa Pos. ~~3,4,5,6,7,8,9~~
Seq#:12; Xaa Pos. ~~3,4,5,6,7,8~~
Seq#:13; Xaa Pos. ~~3,4,5,6,7,8~~
Seq#:23; N Pos. 22,25,31,32
Seq#:25; Xaa Pos. 3,4,5,6,7
Seq#:26; Xaa Pos. 2,3,4,5,6,7,8
Seq#:27; Xaa Pos. 2,4,5,6,7,8,9
Seq#:28; Xaa Pos. 2,3,4,5,6,7,8
Seq#:29; Xaa Pos. 2,4,5,6,7,8,9
Seq#:30; Xaa Pos. 2,3,5,6,7,8,9
Seq#:31; Xaa Pos. 2,3,4,6,7,8,9
Seq#:32; Xaa Pos. 2,3,4,5,6,7,8
Seq#:33; Xaa Pos. 2,4,5,6,7,8,9,10
Seq#:34; Xaa Pos. 2,3,5,6,7,8,9,10
Seq#:35; Xaa Pos. 2,3,4,6,7,8,9,10
Seq#:36; Xaa Pos. 2,3,4,5,7,8,9,10
Seq#:37; Xaa Pos. 2,3,4,5,6,7,9,10
Seq#:38; Xaa Pos. 2,3,4,5,6,7,8,10
Seq#:39; Xaa Pos. 2,3,4,5,6,7,8,9
Seq#:40; Xaa Pos. 3,4,5,6,7,8,9
Seq#:41; Xaa Pos. 3,4,5,6,7,8,9,10
Seq#:42; Xaa Pos. 3,4,5,6,7,8,9,10
Seq#:43; Xaa Pos. 3,4,5,6,7,8,9,10,11
Seq#:44; Xaa Pos. 2,4,5,6,7,8,9
Seq#:45; Xaa Pos. 2,4,5,6,7,8,9
Seq#:46; Xaa Pos. 3,4,5,6,7,8,9,10
Seq#:47; Xaa Pos. 3,4,5,6,7,8
Seq#:48; Xaa Pos. 3,4,5,6,7,8,9
Seq#:49; Xaa Pos. 3,4,5,6,7,9
Seq#:50; Xaa Pos. 3,4,5,6,7,8,9
Seq#:51; Xaa Pos. 3,4,5,6,8
Seq#:52; Xaa Pos. 3,4,5,6,7,8
Seq#:53; Xaa Pos. 3,4,5,6,7,8,10
Seq#:54; Xaa Pos. 3,4,5,6,7,8,9,10
Seq#:55; Xaa Pos. 3,4,5,6,7,8,9,10,11
Seq#:56; Xaa Pos. 3,4,5,6,7,8,9,11
Seq#:57; Xaa Pos. 3,4,5,6,7,8,9,10,12
Seq#:58; Xaa Pos. 3,4,5,6,7,8,9,10,11,12
Seq#:59; Xaa Pos. 2,3,4,5,6,7
Seq#:60; Xaa Pos. 2,3,4,5,6,7,8
Seq#:61; Xaa Pos. 2,3,4,5,6,7,8,9
Seq#:62; Xaa Pos. 2,3,4,5,6
Seq#:63; Xaa Pos. 2,3,4,5,6,7,8,9

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Seq#:64; Xaa Pos. 2,3,4,5,6,7,8,9,10
Seq#:65; Xaa Pos. 2,3,4,5,6,7,8,9,10,11
Seq#:66; Xaa Pos. 2,3,4,5,6,7,8,9,10,12
Seq#:67; Xaa Pos. 2,3,4,5,6,7,8,9,10,11,12,14
Seq#:82; Xaa Pos. 4
Seq#:88; Xaa Pos. 4,9
Seq#:94; Xaa Pos. 2

VERIFICATION SUMMARY

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Input Set : A:\Sequence Listing.txt

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L:227 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:297 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:906 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:939 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:969 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:1004 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:1029 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:1054 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:1084 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:1114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:1139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:1169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:1204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:1234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:1269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:1304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:1334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:1364 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:1384 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:1409 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:1429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
L:1454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:1484 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
L:1509 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:1529 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:1549 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:1574 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
L:1599 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0
L:1629 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0
L:1654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:1684 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0
L:1709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0
L:1739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:0
L:1769 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:0
L:1794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:0
L:1819 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:0
L:1849 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:0
L:1874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0
L:1899 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:0
L:1924 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0
L:1949 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:0
L:1974 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
L:1999 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0
L:2024 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0
L:2054 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:0
L:2084 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:0

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L:2304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82 after pos.:0

L:2399 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:88 after pos.:0